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EVENTS AND ARTICLES

Tree Plantings on Kahoolawe

The windswept, barren, and arid slopes of Kahoolawe Island are difficult to reforest. There is no soil--the seedlings must be planted in the exposed, eroding parent material. Trial plantings by the Hawaii Division of Forestry and the U. S. Forest Service during the past three years have produced both success and failures. The combination of extended dry periods and strong winds have caused many drought resistant species, both native and exotic, to succumb, or dieback.

Of interest is a summary of what has occurred at Planting Site 4, which was fenced to exclude the goats. In January 1971, a total of 249 seedlings representing 10 species were planted. Also, one or more sisal bulbils (Agave sisalana) were sown in 156 prepared spots. A slow release fertilizer was applied to 60 percent of the seedlings planted. At that time the only vegetation present was a single species--pitted beardgrass (Andropogan pertusus). This grass species occupied less than 3 percent of the area. Three years later, despite protection from goats, no other species have appeared, and the pitted beardgrass has not increased, area-wise.

After three years, the best species for this adverse site appear to be tamarisk (Tamarix spp.) and horsetail ironwood (Casuarina equisetifolia). The latter now averages 12 feet in height (range 8-18 feet), survival is 96%, and all show good vigor. The ironwoods that were fertilized were 33 percent taller than those that were not. The excellent growth of the species was attained despite severe bark stripping damage, probably by tree rats (Ratus ratus ratus). Only one (4%) of the native wili-wili (Erythrina sandwicensis) seedlings planted was alive after three years. Only 7 live sisal plants were counted. All of the Acacia koaia seedlings died. Survival, growth, and vigor of the other species planted ranged from poor to good.

SHOUT
SHARE
IT

During February 1973 a second planting of 146 seedlings, representing 4 native and 6 exotic species, was made. Included were 9 more wili-wili and 15 a'alii (Dodonaea eriocarpa). The soil was dry and no rains occurred during the critical post-planting period. Mortality was 91 percent after 1 year. The survivors, all 9 wili-wili and 4 of the native a'alii seedlings are now growing vigorously. These had been planted within 10 feet and downwind of the older ironwood and tamarisk trees, which served as a wind-break. It had been noted at the time the wili-wili and a'alii were planted that there was moisture in the soil only in the area adjacent to the older trees, and where leaf litter was beginning to form a mat over the bare ground.

The small experimental planting at Site 4 proves that it is possible to revegetate Kahoolawe and control erosion, that windbreaks using exotic species can be established, and native species have promise for reforestation once the windbreaks are present.

Craig D. Whitesell
(Member Botanical Society)

Nairobi

An item in the March 9, 1974 Saturday Review World should be of interest to all botanists: "On the northern appraoches to Mount Kilimanjaro, where the Masai drive their herds, the land has been dying. The woodlands of Amboseli, with their parasol-shaped acacia trees and splendid game, are becoming a moonscape; since 1950 about 90 percent of the trees have died. It was quickly assumed that the cause was man-made depredation; overgrazing by the Masai herds.

In one of those occasional lessons so good for the souls of conservationists a scientist at the University of Nairobi has proved that Amboseli is dying a natural death. Ironically, the cause is increased rainfall in an arid zone that seemed ever needful of more water. But the rising water table immersed the tree roots in dissolved mineral salts deposited long ago in a shallow lake without outlet. Salinity, not cattle or elephants, has been killing the acacias.

Dr. David Western also learned from the Masai and from historical records of explorers that a century ago Amboseli looked much as it does today and for the same reason. It was only early in this century that the area turned into lush woodland - a reminder that nature can destroy and replenish itself without the intervention of man."

Craig D. Whitesell

Forest Type Maps

The Pacific Scientific Information Center, Bernice P. Bisnop Museum, Honolulu was recently presented a series of "Hawaii Forest Type Maps" by the U. S. Forest Service's Institute of Pacific Islands Forestry. The maps, compiled primarily through interpretations of aerial photographs, are a part of a survey of Hawaii's forest resources conducted by the Hawaii Division of Forestry and the U. S. Forest Service. The 160 maps are in two large volumes and were hand colored for pictorial representation of the land and vegetation types classified. Edwin Petteys of the Hawaii Division of Forestry and Robert E. Nelson, U. S. Forest Service arranged with Dr. Roland Force, Museum Director to make the special presentation of these maps to Edwin H. Bryan, Jr., Manager of the Information Center.

Editor

Pacific Science Information Center

THE PACIFIC SCIENTIFIC INFORMATION CENTER is located on the ground floor of Paki Hall of Bernice P. Bishop Museum. Its purpose is to serve as a clearinghouse for scientific information regarding the oceanic Pacific area - Polynesia, Micronesia and Melanesia - and closely related areas to the west, particularly in the fields of geography, and the natural and social sciences. It houses and cares for the Museum's map collection. One of its major projects is the correlation of place names in the Pacific area.

It cooperates with scientists working on, or actively interested in the Pacific area, and has published annotated directories of Pacific Anthropologists, Pacific Botanists, Pacific Entomologists, and Indo-Pacific Invertebrate Zoologists.

Its holdings include about 15,000 maps, 70,000 aerial photographs, over 2500 shelved books, and 130 metal file drawers of notes, pamphlets, clippings and other material arranged in files by areas and subjects. These are all indexed, and some bibliographic work has been done on the Pacific area, particularly Hawaii and Micronesia. Several books and pamphlets have been published, and others are in course of preparation: list available.

Bibliographic work has been done on some subjects and areas, particularly in Polynesia and Micronesia. In addition to our own holdings, a primary source for this has been the Bishop Museum Library, located on the floor above. Published lists include: CIMA bibliography, 1962; SIM bibliography, 1964; and TRIPP bibliography, 1966. An indexed card catalog is maintained of publications of the South Pacific Commission. The Center has annotated check lists of Pacific birds, mammals and reptiles. Other biogeographical work is facilitated through cooperation with the Bishop Museum's herbarium, and departments of entomology and zoology.

Scientific directories published to date include: Pacific Anthropologists 1962, 1964, 1971, and 1973 (the last by computerization); Pacific Botanists 1963 and 1969; Pacific Entomologists 1966, with a new edition in preparation; and Indo-Pacific Invertebrate Zoologists (other than Entomologists) 1968. For a time those concerning the social scientists and entomologists were supplemented by periodic newsletters, but lack of funds and personnel have caused these to be discontinued. Some new editions of these directories, and one on Vertebrate Zoologists in the Pacific area are planned.

The "Center" is open to the public, especially persons doing scientific research, five days a week from 8:00 A.M. to 4:00 P.M. We cannot undertake to do research except by contract.

Edwin H. Bryan, Jr.
Manager

50th Anniversary of Wilderness

A commemoration ceremony is planned for June 2, 1974 in Silver City, New Mexico, to celebrate the 50th anniversary of a Wilderness area. It was on June 3, 1924 that first Wilderness area was set aside on the Nation's Public Lands. This was done by the U. S. Forest Service on the Gila National Forest in New Mexico.

Ninety-seven percent of the existing 10.7 million-acre National Wilderness System is in our National Forest Lands.

Editor

SOCIETY BUSINESS

Minutes of the Regular Meeting, February 4, 1974

The meeting was brought to order by the president, Dr. Theobald, at 7:35 p.m. The minutes of the previous regular meeting were read and approved. The treasurer's report submitted for February showed a balance of $397.99 in the checking account. There were 37 members and 13 guests in attendance.

Reporting for the Conservation Committee, Ruth Gay announced an upcoming hearing on the Wilderness Proposal for the Hawaii Volcanoes National Park. A motion was passed to appoint Ms. Gay to represent the Society at the hearing to support the proposal.

Ms. Gay also reported that another hearing concerning House Bill 2150 which would allow for the introduction but not the liberation of axis deer in Hawaii. A motion was passed to instruct Beatrice Krauss to testify for the Society against this bill.

For the Agricultural Advisory Committee, Ron Hurov reported a move towards more natural products from plants. A book concerning this topic is The Closing Circle by Barry Commoner. Mr. Hurov also suggested that Hawaii is an ideal place to do research on natural products and is currently working with the governor's office on this.

In OLD BUSINESS, a motion for an amendment to the Constitution to establish life membership at $150 was amended to read $100.

In NEW BUSINESS, Dr. Theobald announced that this year is the Society's 50th anniversary. He handed out an outline for the Commorative issue and asked for comments. He also suggested a dinner meeting for the May meeting. A motion was passed to allow the chairman to prepare a report on this Commemorative issue and other suggestions received from the membership.

A motion was passed to exchange membership lists with Friends of Foster Garden.

The vice president, Dr. Derral Herbst introduced the speaker, Ms. Betsy Harrison who gave a slide presentation and talk on "A comparison of the bogs of the east and west Maui."

Plant displays were presented by Mr. Ted Green and Dr. Robert Warner.

The meeting adjourned at 9:10 p. m. after which refreshments were served.

Jean Maka

Minutes of the Regular Meeting, March 4, 1974

The meeting was brought to order by the president, Dr. Theobald at 7:35 p.m. The minutes of the previous regular meeting were read and approved. The treasurer's report was presented. There were 23 members and 9 guests in attendance. Correspondence was read concerning a hearing March 7 on a Senate Resolution requesting funds for a dam project on Kauai. It was moved that the Society take a definite stand against it. The motion passed.

In OLD BUSINESS, the president reported that the 50th anniversary Commemorative Issue would be approximately 24 pages including 4 photos. For 500 copies, the cost would be about $500. After some discussion, the president was directed to appoint a committee to make the decisions on the anniversary dinner on May 6.

The amendment to the constitution to establish life membership at $100 was passed unanimously.

Robert Warner announced another chance to work at the Plant Science Instructional Arboretum some future Saturday. He passed around a sign up sheet for those interested.

Milton Manhof announced the Science Fair coming up. A motion was passed to offer prizes to Science Fair students.

The vice president, Derral Herbst introduced the speaker, Ms. Anna Bond, the Executive Director of Moanalua Gardens Foundation, who gave a presentation of "Environmental Education in Moanalua Valley."

Dr. Warner and Ted Green had plant displays.

The meeting adjourned at 8:55 p.m., followed by refreshments.

Jean Maka

PUBLICATIONS

Ueki, Robert and Clifford W. Smith 1973
The genus Crepidotus in Hawaii. Canadian Journal of Botany 51(6): 1251-1254.

Walters, Gerald A. Nov. 1972
Chemical treatment of bare-root Saligna Eucalyptus seedlings offers no advantages. Tree Planters' Notes 23(4): 4-7.

Watson, Donald P. May 1973
Coconut as an ornamental. University of Hawaii Cooperative Extension Service Circular 478.

Yamamoto, Teruo and Henry W. Anderson April 1973
Splash erosion related to soil erodibility indexes and other forest soil properties in Hawaii. Water Resources Research 9(2):336-345.

Yee, Warren July 1972
The lychee in Hawaii. University of Hawaii Cooperative Extension Service, Circular 366.

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THE HAWAIIAN BOTANICAL SOCIETY NEWSLETTER is published in February, April, June, October, and December. It is distributed to all Society members for the purpose of informing them about botanical news and progress in Hawaii and the Pacific. News contributions and articles are welcomed.

THE HAWAIIAN BOTANICAL SOCIETY was founded in 1924 to "advance the science of Botany in all its applications, encourage research in Botany in all its phases," and "promote the welfare of its members and to develop the spirit of good fellowship and cooperation among them." Any person interested in the plant life of the Hawaiian Islands is eligible for membership in this Society.

Dues: Regular - $5.00 per year
Family - $7.50
College students - $2.00
Students below college level - $1.00

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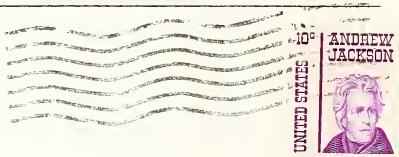

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